(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification[7]: **H04L 12/26**

(21) International Application Number:
PCT/IB2005/000730

(22) International Filing Date: 21 March 2005 (21.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/554,605 19 March 2004 (19.03.2004) US

(71) Applicant: **NORTEL NETWORKS LIMITED** [CA/CA]; 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec H4S 2A9 (CA).

(72) Inventors: **CHU, Chung-Cheung**; 9370 Rameau Street, Brossard, Quebec J4X 2M3 (CA). **RABIPOUR, Rafi**; 5745 Blossom Avenue, Cote Saint-Luc, Quebec H4M 2Y1 (CA). **YUE, Peter**; 987 White Street, Apt. 204, St. Laurent, Quebec H4M 2Y1 (CA).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
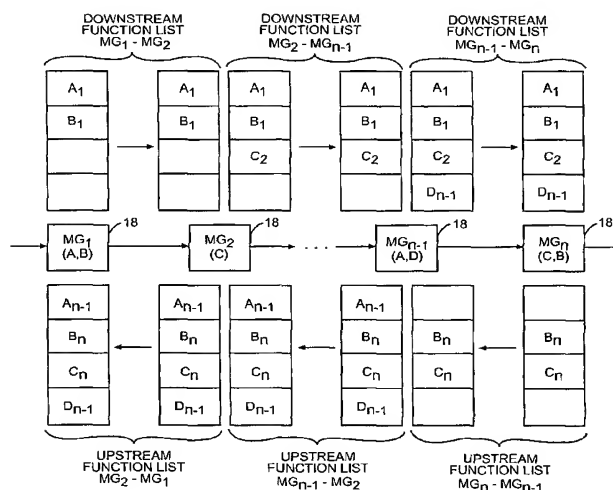— of inventorship (Rule 4.17(iv)) for US only

Published:
— with international search report

(88) **Date of publication of the international search report:**
30 March 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMMUNICATING PROCESSING CAPABILITES ALONG A COMMUNICATIONS PATH

(57) **Abstract:** The present invention provides a technique for determining which nodes are to provide various functions on traffic along a particular communication path. Generally, a communication path may include multiple nodes between which and through which traffic is routed. These nodes may include the communication terminals at either end of the communication path, as well as various types of routing nodes along the communication path. Each node will send to other nodes in the communication path information identifying the local functions it is capable of providing to the traffic carried in the communication path, and if available, remote functions capable of being provided to the traffic by other nodes in the communication path. Each node will receive from other nodes in the communication path information bearing on the remote functions. Each node will access criteria to determine whether any local functions should be applied to the traffic.